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ABSTRACT

This practicum was designed to increase the ability of physical therapy students to be innovative in the treatment of children, 0 to 3 years old, by creatively using toys and games. The practicum involved: (1) administering a test to seven senior physical therapy majors to determine students' current knowledge; (2) administering a questionnaire to seven practicing clinical supervisors to determine use of games and toys as adjuncts to therapeutic intervention; (3) planning and conducting a specialized pediatric seminar/workshop, which included class discussions, outside assignments, in-class projects, slides, games, and 5 weeks of clinical experience in a pediatric setting; (4) indirectly supervising the students at the affiliated clinical facility; and (5) developing, administering, and scoring a program evaluation component. Analysis of the data revealed that the seminar/workshop increased students' use of toys and games in their treatment of children, and that students were appropriately teaching parents how to select and use toys for their handicapped children. A survey of the seven students indicated that they felt that the program expanded their problem-solving abilities and parent-teaching skills. The appendices include the pre-tests, post-tests, questionnaire, and toy selection criteria used in this study. (PB)

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Increasing Physical Therapy Students' Ability to be Innovative in the Treatment of Children by Creatively Using Games and Toys.

by

Jennifer L. Lander, MS, PT

Cluster 27

NOVA UNIVERSITY

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A Report of Practicum I: Presented to the Ed.D. Program in Early and Middle Childhood in Partial Fulfillment of the Requirements for the Degree of Doctor of Education.

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PRACTICUM APPROVAL SHEET

This practicum took place as described herein.

Verifier: Awilda R. Haskins
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2.13.89
Date

This practicum report was submitted by Jennifer Lander under the direction of the advisor listed below. It was submitted to the Ed.D. Program in Early and Middle Childhood and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University.

Approved:

2/7/89
Date of Final Approval of Report

JoEllen Salce Rogers, Ph.D.
JoEllen Salce Rogers, Ph.D.

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ABSTRACT

Increasing Physical Therapy Students' Ability to be Innovative in the Treatment of Children by Creatively Using Games and Toys. Lander, Jennifer L., 1989: Practicum Report, Nova University, Ed.D. Program in Early and Middle Childhood. Descriptors: Physical Therapy/Physical Therapy Education/Early Intervention/ Games/Toys/Play/Parent Training/ Innovative Problem Solving

This practicum was designed to increase the ability of physical therapy students to be innovative in the treatment of children by creatively using toys and games. The primary goal was to have the physical therapy students be as effective as possible in their therapeutic intervention of handicapped infants and children by integrating their knowledge of development, treatment programs, and the needs of the child with appropriate toys and games. A second aim was to increase the students' ability to teach parents about toy selection and use.

The author administered a test to seven students and a questionnaire to seven practicing clinical supervisors to determine to students' current knowledge and use of games and toys as adjuncts to therapeutic intervention; planned and conducted a specialized pediatric seminar/workshop; indirectly supervised the students at the affiliating facility; and developed, administered, and scored the program evaluation component.

The results of the practicum were positive. Analysis of the data revealed that the seminar/workshop proved to increase the students' use of toys and games within their treatment of children and were appropriately teaching parents how to select and use toys for their handicapped children. The seven students indicated that the program expanded their problem-solving abilities and parent teaching skills. The clinical supervisors also indicated that the students had inspired them to add this dimension of therapeutic intervention to their own practice.

CHAPTER I

INTRODUCTION

Description of the Setting

The university in which the program resides is in the southeastern region of the United States and located in a large metropolitan area. The program is in the Department of Physical Therapy, College of Health.

The curriculum of this program provides for the basic entry-level education which, upon satisfactory completion of required competencies, awards a Bachelor of Science degree in Physical Therapy. The program is considered a "limited enrollment" upper division program. This means that the program only accepts a limited number of the applicants. The program at this university has an enrollment of approximately 35 students in each of the junior and senior classes.

Student Population

Because of this limited enrollment, the program is able to choose the applicants who excel in each of the admissions requirements. Therefore, the program is able to accept highly qualified and excellent students.

The students who participated in this study were senior physical therapy majors who had shown a special

interest in the pediatric field. These students were enrolled in an elective course "Pediatric Seminar". The students had already completed courses on child development, adult neurological therapy techniques, orthopedics, and neurology (among other basic procedures courses).

Following this semester course the students went into clinical facilities to do their required internships. Upon satisfactory completion of both the academic and clinical aspects of their education, they receive a B.S. degree in physical therapy, which then makes them eligible to sit for the board exams necessary for licensure.

The Author's Role and Responsibilities

The author has responsibility teaching the physical therapy students five courses with their labs and supervision of students at their clinical internships. In addition to her teaching, she participates on departmental, school, and university committees, student advisement, and departmental research projects.

The author has a Bachelor of Science degree in Physical Therapy and a Master of Science degree in Developmental Disabilities. She has 19 years of

clinical experience, 16 of which are in pediatric therapy. She has taught four years in higher education and has given many presentations related to the pediatric field.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

The problems defined for this practicum were that physical therapy students did not demonstrate an understanding on how to integrate play activities with the specialized therapeutic exercise programs for children 0 - 3 years old, the students did not know how to choose appropriate toys as an adjunct for therapy, and the students did not know how to teach parents or other caregivers the technique of proper toy selection.

Problem Documentation

To document the problem, the results of a test were analyzed as to the number of times the students had toy references and a short survey questionnaire was given to practitioners who supervise our students in the clinic.

The pre-test was one component of a lab practical exam given in their class (see Appendix A). The scores were based on the IEP/ITP (Individual Educational Plan/Individual Treatment Plan) that the students wrote for this examination. The author looked at the use of or mention of toys in their responses regarding the treatment plan that they would devise for a child whom

they had evaluated. The categories for scoring the data are reported in Appendix B. The pre-test data is included in the table with the post-test data (see Table 1).

The results of this pre-test show that the students, in general, do not mention specific toys or their use in developing the treatment programs with a high rate of consistency. All students mentioned using "objects" in their treatments, but only three of the seven students mentioned specific appropriate toys. Of those three students, none mentioned any high level uses of toys.

The questionnaire was designed to be short, easily understood, and quick to fill out (see Appendix C). It was given to those licensed physical therapists in the community who have taken our students for their pediatric specialty internships in the past years and would be supervising them in their clinical internships after their training. The conclusion which can be drawn from the raw data (see Table 2 in Results section, p 32) is that the clinicians used toys in their treatments but are not observing the students using them, and that the students are not teaching others the importance of play and appropriate toy selection.

It was interesting to note that only three out of seven of the clinicians teach the parents about toy use. Another interesting thing was that most of the clinicians use toys in their practices, yet do not encourage the students to do so while they are at those clinics.

Analysis of the Causes

In analyzing the causes, one must understand that pediatric therapy as we know it today is a very new specialty. Teaching specialty areas in an undergraduate program is not a requirement of the program's accreditation standards.

Physical therapy students are presumed generally competent in all entry-level aspects of physical therapy if they pass the academic curriculum and their clinical internships. Ninty-three percent of our graduates pass the state board examination for licensure on their first attempt, and generally, those who do not, will pass it on the second attempt.

In the last three years the students have had to take an in-departmental elective. The electives are seminar courses expanding the students' knowledge in one of the accepted specialties in the physical therapy profession. These courses are to give the student a

higher level of competence in a selected specialty, so that, if they choose, after graduation they will feel comfortable in narrowing their practice to a certain area within the profession.

The specialty of pediatrics is in its infancy and is changing rapidly with new research results in therapeutic intervention strategies. Therapy used to consist of the same techniques that were used with adults, but with decreased resistance and fewer repetitions of classical exercise programs. Creativity and variety of intervention was not a part of the older techniques.

One of the possible causes of the problems noted earlier was that integrating the importance of play into evaluation and treatment techniques had not been stressed in entry level physical therapy classes. The students were given instruction in human development and a variety of technique courses. However, integrating this knowledge was not being stressed.

Another cause noted was that there were no practical experiences in the use of toys and games in therapy in the curriculum. Most technique courses utilize standard and classical exercise experiences and do not stray far from the textbook and standard clinical problem solving.

With the new federal laws (PL 94-142 and 99-457), pediatric physical therapy has entered a new realm of strategies. These strategies have been influenced and enriched by the educational model in which they work. The medical model of therapeutic intervention is not acceptable in the school systems anymore. The therapists must show that the therapy provided enhances the educational objectives set forth in the IEPs of the special population of handicapped children.

As was noted above, the practice of physical therapy in any setting has been typically dominated by the "medical model". To teach any other style has not been approached in many university programs.

Public Law 99-457 provides for the special services for the 0 - 5 population. The physical therapy graduate who decides to practice in this setting must be able to handle any of the children within this age range with developmentally appropriate techniques.

The creative problem solving taught in the pediatric course may have been deficient or just ineffective. The course had stressed developmentally appropriate treatment techniques, but had not emphasized toys and games as functional strategies in therapeutic intervention.

Related Literature

This combination of problems directly affects the quality of therapeutic intervention for the infants and young child needing such services. The parents are also affected, because they may be given inaccurate advice from some well-meaning friend or relative regarding what toy is best for their child.

PL 94-142 and PL 99-457 have been interpreted for the general public and professionals by many different journals and bulletins (Edmister & Ekstrand, 1987; Garwood, Fewell, & Neisworth, 1988; National Association of State Directors of Special Education, Inc. [NASDSE], 1986a, 1986b). PL 99-457 has developed criteria for the services to be made available to the infant and young toddler who falls within the scope of the law. Early intervention for these children is not completely new. However, not using a totally medical intervention model is new (Levangie, 1980; McLaurin, 1984; Odom, Yoder, & Hill, 1988; Surburg, 1981).

Because the treatment and service model that is to be used in practice under these laws is educational in content, it appears to be even more important that the new therapists being trained can integrate their medical knowledge with developmental and educational intervention strategies. Currie (1969) describes the use

of toys in the evaluation process as an added dimension to the generally accepted process. She also describes the functional aspect of evaluating with selected toys that normal evaluation techniques do not address. This allows for an evaluator to observe a handicapped child's developmental level. This integration of knowledge is not currently taught in most university programs.

The value of play for normal children has been widely recognized (Courtney, 1973; D'Eugenio, 1986; Johnson, 1982, chap. 1, 3, 4; Tizard & Harvey, 1977, chap. 1, 4-6, 14) and the deficits caused by play deprivation was noted by Bruner (cited in Gralewiez, 1973). Gralewiez' study showed that nonhandicapped subjects had more play time than handicapped subjects during preschool day programs. She noted that the difference in time for the handicapped children was spent in their therapeutic exercise sessions. At the time this study was done, "therapy" was still using the medical model and was not as concerned about the whole development of the child.

Now that an educational model of therapeutic intervention is in place, it is even more important for the physical therapist to be able to use developmental theory within the therapy sessions. White (1987) states that when she first started into pediatric practice, she

noticed that she was satisfied with her academic training in technique and theory. However, she claims that she quickly realized that she "was lacking in the skill of channelling a young child's 'play' into constructive therapeutic activities" (p. 20). She suggested several ways to begin incorporating cognitive learning skills into the physical therapy sessions by including various toys and games that were developmentally and cognitively appropriate.

One of the most notable sections in the new law (PL 99-457) requires the writing of an Individualized Family Service Plan (IFSP) that is to include a statement of family strengths and needs as well as a description of the goals and the services for both infants and families (Bailey & Simeonsson, 1988; Walsh, 1987, Sept/Oct). Bailey & Simeonsson found that three of the more highly cited family needs (as stated by family members) were: a) the need for more information about how to teach their child, b) the need for more information on how to play with their child, and c) the need for more information about how children grow and develop. Because physical therapists see the 0 - 3 years old children in the home setting, it is very important for them to be able to address those needs for the family.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

General Goals

To be as effective as possible in the therapeutic intervention of handicapped infants and young children, one must be able to motivate them to cooperate during the treatment sessions. As a result the following goals were projected for this practicum:

1. Given a child (0 -3 years old), the physical therapy students will be able to integrate toys and play activities within their prescribed therapeutic exercise programs.

2. Given a handicapped child, the students will be able to choose appropriate toys as an adjunct for therapy.

3. Given a specific situation, the student will be able to inform or teach parents or caregivers appropriate toy selection criteria.

Behavior Expected

The behavioral objectives were related to the stated goals and to the documented problems. The following behavioral objectives which were selected for this practicum:

1. Following a period of 12 weeks, each student will show an increase of instances when specific toys are suggested and used appropriately in their treatment planning and implementation.

2. Following a period of 12 weeks, each student will show an increase in instances when parents or caregivers are given instruction regarding toy use in home programs and appropriate toy selection criteria.

Standard of Performance

Upon completion of the proposed seven weeks of classroom work and five weeks of clinical experience, the following standards of performance were used to measure behavioral expectations:

1. The students will mention the appropriate use of specific toys an average of at least five times per student in their post-test.

2. The students will initiate (without the supervisor's prompting) an average of at least five parent teaching sessions (per student) relating to appropriate toy selection and use at home.

Assessment Instruments

The following assessment instruments were used to measure the standards of performance:

1. The pre- and post-test were the same in format. However, the child who was evaluated was different. The students' post-test scores were based on the section of the final practical exam which describes the ITP that would be recommended for the child (see Appendix A, 6-c). The plans which are described by each student were categorically labelled and the data collected (see Appendix B for categories). The scores were also based only on those times that the student appropriately mentioned the use of toys. If the student had suggested an inappropriate use, that mention was not counted.

2. The questionnaire also served as a pre- and post-intervention assessment instrument (see Appendix C). As a post-intervention tool, it was administered to the clinicians after the students had rotated through their facility (5 week affiliation). The questionnaire was given to the clinicians orally and in the presence of the author. The questions were not open-ended, so very little time was needed to administer the four-question survey.

Analyzing the Results

1. The pre- and the post-test scores of the practical exams were compared categorically. The results are presented in Table 1 in Chapter V. The comparison is discussed within this report.

2. The pre- and post-intervention questionnaires given to the clinicians were compared and discussed in this report. The results are in Table 2 within Chapter V and shows a comparisons of both surveys.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation of Possible Solutions

There were a number of possible solutions. They included the following instructional strategies:

1. Lectures specifically regarding the stated goals.

2. Group projects regarding play, toys, and their selection criteria.

3. Individual projects regarding the stated goals and objectives with role-playing of parent-teaching sessions.

4. Videotaped sessions of treatment using toys (to be critiqued by the students).

5. Videotaped sessions of therapist-parent interaction.

6. Open discussion regarding the stated goals and objectives facilitated by the instructor.

7. Hands-on creative problem solving within a simulated clinical situation, facilitated by the instructor.

A few of the questions which were asked when searching the literature for possible solutions were: How have the trends and legislative mandates impacted on

the practice patterns of physical therapists? How have the professional educational programs responded to these changes in patterns of practice? And what recommendations have been made for the preparation of professionals to work with the developmentally disabled and the infants at risk?

Most of the non-treatment articles pertaining to developmental disablities related in some way to the practice of physical therapy in the school setting. In a relatively early article, DeHaven (1974) considers the impact of "the right to education" and the "right to treatment decisions" on the role of the physical therapists. DeHaven rightly complains that the earlier criticisms by pediatric physical therapists regarding the failure of PT curricula to prepare students to work with the developmentally disabled were ignored. He suggests that legislation which incorporated PT into school settings is, in part, based on several questionable assumptions about the knowledge and (integrative) skills of most physical therapists.

In addition to questioning the availability of sufficient numbers of physical therapists, DeHaven asks whether PTs have (a) sufficient knowledge of human growth and development, (b) adequate understanding of basic educational principles so as to employ them in the

treatment of the developmentally disabled children, and (c) whether PTs can make the transition from the traditional medical model to the educational model. As a result of these uncertainties, DeHaven calls for increased opportunities for interested students to develop the necessary skills to work in special education. Several universities have since opened post-baccalaureate programs for those interested in this specialty. The author has subsequently offered an undergraduate elective in the physical therapy program at her present university affiliation.

Most basic entry level physical therapy programs have addressed DeHaven's first question regarding the adequate knowledge in human growth and development. Only those schools which offer advanced specialties are starting to address the other two concerns.

Perhaps because physical therapy has historically been considered more of a medical profession than other therapies, the potential problems associated with moving away from a medical model are articulated more frequently in the physical therapy literature. Surburg (1981, p. 210) states, "Physical therapy preparation is based on a medical model." Levangie (1980, p. 776) reflects that in the past, physical therapy services have operated comfortably within the medical services

model. She then suggests that the "practice of physical therapy in the public schools is probably moving as far from the traditional sphere as any specialty within the profession."

Within several articles the authors make recommendations regarding the educational needs of the physical therapists who want to work with exceptional children in school settings. In one of the only articles addressing services for children who are severely handicapped, Connolly and Anderson (1978) stress the need for therapists to become familiar with research on families of children with mental retardation. They also advocate for the multidisciplinary approach to service delivery. Surburg (1981) calls for orientation to PL 94-142, germane electives for this specialty, and on-site clinical experience. Mullins (1981) makes similar recommendations and also emphasizes the importance of consultative skills. Finally, although she does not suggest how this might be accomplished, Mullins recommends that all health care professionals be flexible to the diverse demands and constraints of the educational system.

Only one model of PT preparation in developmental disabilities was reported in the literaure. McLaurin (1984) describes a course addressing employment in the

public schools which was offered to advanced master's degree students specializing in pediatrics. This course allowed students to spend a limited amount of time in school settings and included content on interdisciplinary programming as it related to the IEP, structure of public schools, and continuing education for teachers.

The recommendations of the authors of literature relating to physical therapy tend to focus on making this pediatric specialty elective coursework and include clinical experiences to interested students.

To go beyond the pediatric physical therapy literature regarding an instructional solution, the author was able to locate one article that dealt with educating occupational therapists and several others dealing with instructional strategies in general.

Description and analysis of benefit of various instructional strategies are in Weston and Cranton (1986). They review a comprehensive list of instructional methods and materials and also provide some research-based guidelines for the matching of strategies to characteristics of the instructional setting. The methods fall into four categories: (a) instructor-centered, (b) interactive, (c) individualized, and (d) experiential. The main

instructor-centered methods are lecture, questioning, and demonstration formats. The interactive methods most familiar to all are the discussion and group project format. The individualized learning methods are programmed, modular, and computerized instruction. And the experiential learning method can be described in terms of each of the categories discussed so far. What distinguishes it from the other categories is the unique characteristic of the student performing in a real or simulated setting. Natural settings are those in the field or clinic; simulated settings are considered in the laboratory, role playing, some forms of drill, and simulated situations and games.

The materials which Weston and Cranton (1986) describe are the resources used to communicate information. The materials can be handouts, overhead transparencies, audio-visuals (tapes and films) and the oral aspect of the lecture presentation. Materials used in the demonstration format are either real things or models of real objects. And if reading assignments are essential to the instruction, then the text materials become part of the method.

The three components which the materials used have are: (a) a delivery system, (b) a message, and (c) a condition of abstractness. In addition the

characteristics of group size, pacing and expected interaction are important when deciding upon the materials needed for the instructional situation.

For students of physical therapy to see connections between theory and clinical practice, it is necessary for them to transfer their academic knowledge to the clinical setting. Neistadt (1987) described a more specific model than Weston and Cranton for teaching clinical reasoning to her occupational therapy students. She created a pseudo-clinical setting within the classroom. She had guests come to her class who were handicapped and willing to help teach the students about their own problems. The students then performed the necessary evaluations, etc., and were to problem-solve many of the necessary recommendations. She found this model to be effective in helping her students relate the theory to the clinical practice.

With the knowledge of importance of play and the developmental levels normal children pass through, students of physical therapy need to be able to relate those theories to their clinical practice. One of the obligations of education is to try to achieve a balance between teaching students to master specific information and fostering the ability to problem solve in a clinical

situation. The model that Neistadt focuses on appears to encourage this clinical competence.

Justification for Solution Selected

The solution selected was a combination of individual projects, hands-on creative problem solving, and open discussion facilitated by the instructor.

Weston and Cranton (1986) suggest that the curricular designer's task is a complex process. The task being "to select from among the various options the combination of methods and materials which seem most appropriate for the objective, the learners, and the constraints of the instructional situation" (p. 277).

In this process three criteria must be addressed: (a) the objectives, including the requirements of the task and the domain of learning; (b) the audience: and (c) the constraints of the instructional situation and environment available.

In considering the cognitive and affective domains, the highest levels of analysis, synthesis, evaluation, organization, and characterization by a value have an expected set of more complex behaviors, usually with less instructor guidance. Projects with instructor feedback, field or simulated clinical experiences, and role playing are important. Discussions are useful in

integrating the results of the students' experiences. Audio and visual materials are considered by Weston and Cranton to be of less significance in the higher levels of the domains.

At the higher levels of the psychomotor domain (complex overt response, adaptation, and origination), predominent methods are games and field experience. Independent projects are also important, along with student reports, videotapes (usually for feedback purposes) and specimens (equipment).

In regards to the audience, the instructor should consider individual differences in learning style, level of instruction, students' prior knowledge, any other special needs of the students in the class, and class size. In large classes discussion lose their effectiveness and experiential and individualized learning methods become unmanageable. However, these methods can be very effective in small classes.

The specific reasons for selecting the solution combination were with regards to attaining the higher levels of each of the domains. Because the group was small, lecture format was not appropriate. Videotaping sessions would have greatly enhanced the objectives of the course, however, the university program is (always) limited in funds and the instructor was limited in time.

Hands-on, individual projects, and discussion were utilized to involve the student in an active role in the learning process.

Auto-tutorial methods as described by Blechert, Torgrimson, and Schoeneberger (1975) may have been beneficial, but are also expensive and time consuming to produce.

Description of Program

The program consisted of six three-hour seminar sessions with outside assignments, in-class projects, slides, and games and five weeks of clinical experience in a pediatric setting. The content of each of the six seminar sessions and their related outside assignments is discussed below along with the rest of the practicum calendar:

1. Session 1

   a. Discussion of developmental properties of toys and play. Students were asked to remember specific aspects of their development course; reflex development, milestone acquisition timeline, social development, language development. Students were then grouped into pairs. Each pair took one of the above aspects and listed the games and toys that they could think of which related. Then there was discussion regarding the

overlapping aspects of most of the games and toys used in play.

b. Discussion of criteria for selection of developmentally appropriate toys. (See Appendix D for specific topics discussed regarding this subject).

c. Assignment of individual toy project. The student was to pick any commercially produced toy and fill out the form in Appendix E. The student would then share with the class their chosen toy and items on the form (during session 4).

2. Session 2

a. In-class group project/discussions regarding integrating toys (and games) into selected treatment techniques. The students were divided into two groups. Each group was given a simulated patient evaluation with treatment objectives. Each group was to devise a treatment session integrating toy, development, and therapy knowledge.

b. Slides were presented which depicted different treatment strategies with and without the use of toys.

3. Session 3

a. Discussion regarding the various therapy assessment tools which use toys. The assessments discussed were: the Bayley Scales of Infant Development

(Bayley, 1969), the Bruininks-Oseretsky Test of Motor Proficiency (Bruininks, 1978), the Denver Developmental Screening Test (Frankenburg & Dodds, 1967), the Miller Assessment for Preschoolers (Miller, 1982), the Hawaii Early Learning Profile (HELP) (Furuno et al., 1979), the Brazelton Neonatal Behavioral Assessment Scale (Brazelton, 1973), the Developmental Programming for Infants and Young Children (Schafer & Moersch, 1981), and others.

b. A toddler 30 months of age was brought into class, ans several of the assessment items were demonstrated, followed by participation of the students.

4. Session 4

a. In-class presentations of individual toy projects (as assigned from session 1).

b. Further discussion regarding the individual toy projects.

5. Session 5

a. Discussion regarding parent training. The students participated in discussion with the author acting as facilitator. The topics in Appendix F were used as a guide for the discussion.

b. Simulated patient problems/intervention and parent training sessions. Each student was given a scenario of a patient and home situation and was asked

to role-play the parent training session. The role-playing was first demonstrated by the author with commentary regarding the role interspersed within the demonstration.

6. Session 6

a. Toy workshop: Making toys from items found in most homes. The students were given a list of common household items which were to be brought to this class session. Various toys were made with these items to demonstrate that appropriate toys do not need to be expensive nor do they need to be commercially produced. Some of the ideas were from Alpha Chi Omega (1979), Burtt and Kalkstein (1981), Council for Exceptional Children [CEC] (1976), McConkey and Jeffree (1981), Sher (1987, September 23), and the students.

b. IEP workshop: writing and implementing treatment strategies in the educational model. This portion of the session dealt with understanding how to write individual educational plans in the educational model of practice.

7. Session 7

Posttest: the students were required to evaluate a child and plan for treatment.

8. Clinical experience: the students were required to participate in a pediatric clinical affiliation experience for five weeks.

9. Collected data from post-intervention questionnaire.

10. Practicum report written

11. Final report submitted

No special permission was necessary for this practicum to be carried out. The facilities were provided by the university for this class. The clinical facilities were already in place and current contracts were in effect. Supplies and materials were partly the responsibility of the university to provide, and other unusual supplies (like those for the toy workshop) were provided by the students.

CHAPTER V

RESULTS, CONCLUSIONS, RECOMMENDATIONS, AND DISSEMINATION

Results

This practicum was designed to provide various educational experiences to physical therapy students in order that they might provide a more creative approach to the therapy of handicapped infants and children through an expanded use of toys and games during treatment. This creative approach was to include parent training as one of goals of total treatment.

Evaluation of post-training results of the students' posttest scores show the following:

1. The three categories which only mention objects in general went from a total of 32 mentions on the pre-test to a total of 5 mentions on the post-test.

2. The three categories which mention specific toys (with the appropriate goal in mind) went from 3 mentions on the pre-test to 47 mentions on the post-test.

Table 1 shows the total mentions of all the students for each of the six categories. The first score representing the pretest score and the second representing the post-test.

8. Clinical experience: the students were required to participate in a pediatric clinical affiliation experience for five weeks.

9. Collected data from post-intervention questionnaire.

10. Practicum report written

11. Final report submitted

No special permission was necessary for this practicum to be carried out. The facilities were provided by the university for this class. The clinical facilities were already in place and current contracts were in effect. Supplies and materials were partly the responsibility of the university to provide, and other unusual supplies (like those for the toy workshop) were provided by the students.

Table 1: Pre-/ Post-test Mentions of Toys by Category

category	(total) # of times mentioned (pre/post)
1	12 / 1
2	15 / 3
3	5 / 1
4	2 / 15
5	1 / 9
6	0 / 23

3. The questionnaire was given to the seven clinicians who supervised the students at the hosting facilities. All seven responded. The results (Table 2) show that the supervising clinicians observed the students using toys during treatment and teaching the parents more often than previous students.

Table 2: Pre-/ Post Results of Clinician Questionnaire

question	pre-/ post data
1	Y = 6 / 6, N = 1 / 1
2	Y = 6 / 0, N = 1 / 7
3	Y = 3 / 5, N = 4 / 2
4	0 times= 6 / 0, 1 time = 1 / 0, 5 times= 0 / 2, 6 times= 0 / 1, 7 times= 0/ 0/, 8 times= 0 / 1, >9 times= 0 / 3

Conclusions

The program proved to be a success by the standards which were pre-set prior to the implementation of the training sessions. The first standard of performance for this practicum was met. The students did mention the appropriate use of specific toys over five times each. In fact, the average was over 6 times per student.

The second standard of performance was also met. The students did initiate (without supervisor prompting) an average of over five parent teaching sessions each. The average was greater than seven times per student.

It was interesting to note that the clinical supervisors had also increased their parent teaching sessions. One of the clinical practitioners said that she was so impressed with the student's ability to discuss the subject of toy selection with parents that she had the student give the facility an inservice on toys. After that, the practitioners at that facility increased their parent training sessions, too! Another clinical supervisor said that after the student had been at his facility for three weeks, he began to feel guilty that he was not giving as many parent sessions as the student. He subsequently increased his parent contact time and teaching sessions.

The program was considered a success not only because the pre- and post-test results indicated that it was, but because the students seemed to be a good influence on practicing therapists. The students appeared to have learned more from this class then originally expected. They learned how to be non-threatening and tactful in teaching their advanced knowledge. The clinicians were very impressed that the students did not appear arrogant in presenting their sessions to these already practicing therapists.

The author found great satifaction (and had fun in the mean time) in presenting each of the topics during

the training aspect of this practicum. The students seemed to enjoy the hands-on participation and became very good at role playing in the class. The discussion participation improved over the course of time. The students indicated that they had the most fun during the toy making workshop and the worst time during the IEP writing workshop. As a therapist, the author can emphathize with not liking to write IEPs and loving to make toys!

In conclusion, the total program as implemented for this practicum was successful and was helpful to not only the students who participated but also to the clinicians who were fortunate to be supervising them.

Recommendations

There are several aspects of this practicum which could be improved. The workshops, though seemingly successful, were very rushed. Both the toy and the IEP writing workshops were in the same three hour session. Each workshop could have used its own three hour session.

The aspect of role-playing worked well, also. However, this may have been reinforced if a few different parents were to come to class a be "taught" by

the students. Or perhaps if in-home videotapes were to be used for critiquing.

Videotapes of actual babies, both normal and handicapped, playing with various toys would have been a good addition to the classroom sessions.

The primary recommendations for this program would be to spend more time in planning each session and to utilize a greater amount of media and other resources (parents) for instructional enhancement.

Dissemination

Dissemination of several components of this practicum are already in the planning stage, and one aspect has already been done. A workshop regarding toy selection and adaptation has already been given to special education and pre-kindergarten teachers at a State level conference.

The course was successful enough to be able to repeat the whole course in Spring of 1989 to the new class of students. Because of its success with the students, the department has agreed to offer the course regularly. The author has also been given permission to make a videotape for use in this class.

The author will complete a paper to be submitted to a national journal for publication.

The author also anticipates that there will be many other opportunities for wide dissemination of segments of this practicum.

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APPENDIX A

PRETEST/POSTEST INSTRUCTIONS GIVEN TO STUDENTS
LAB PRACTICAL EXAMINATION.

Appendix A

PRETEST/POSTEST INSTRUCTIONS GIVEN TO STUDENTS

LAB PRACTICAL EXAMINATION.

1. You must be on time.

2. You may wear jeans.

3. You should have with you: pen, paper, goniometer, tape measure, and reflex hammer.

4. You may have any notes with you that you wish to make your evaluation run smoothly and efficiently.

5. You will be given 45-50 minutes to do your evaluation, and 10-15 minutes to write any extra notations.

6. You must type your evaluation results and include:

a. 3 primary (high priority) goals,

b. 4 objectives in IEP format; 2 each for the two highest priority goals,

c. 8 treatment technique descriptions; 2 for each of the objectives. Describe the technique as if it were the plan (ITP) that your PTA (PT assistant) was to follow,

d. the format for this should look like this:

Goal I: .....

Objective I: .....

Technique I .....

Technique II .....

Objective II: .....

Technique I .....

Technique II .....

Goal II: .....

Objective I: .....

Technique I .....

Technique II .....

Objective II: .....

Technique I .....

Technique II .....

Goal III: .....

APPENDIX B

CATEGORIES FOR SCORING PRE- AND POST-TRAINING EXAM

Appendix B

I looked at several categories for scoring the pre- and post-training exam for the mention of toys:

1. looking at objects
2. grasping, holding, touching objects
3. manipulating objects
4. looking at specific toys
5. grasping, holding, touching specific toys
6. appropriately manipulating specific toys.

Raw Data:

Student #:	1	2	3	4	5	6	7
Category:	# of times mentioned by each student pre/post						
1. :	4/1	3/0	0/0	3/0	1/0	1/0	0/0
2. :	2/1	2/0	1/0	3/1	3/0	2/1	2/0
3. :	1/1	0/0	0/0	0/0	1/0	2/0	1/0
4. :	0/2	0/2	1/4	0/1	0/2	0/2	1/2
5. :	0/1	0/0	0/0	1/2	0/1	0/2	0/3
6. :	0/2	0/5	0/5	0/2	0/4	0/3	0/2

APPENDIX C

QUESTIONNAIRE GIVEN TO PEDIATRIC CLINICAL SUPERVISORS

Appendix C

This questionnaire was given as a pre-training instrument.

The questionnaire was slightly altered as a post-training instrument, however, only question 4 was changed to reflect their experience with the student who received the training.

1. Do you use toys during treatment at your facility? Y or N

2. Do you see a definite lack of ability for the students you supervise (from our school) regarding integrating toys into therapy sessions?

Y or N

3. Do you teach the parents of your clients how to select toys for home use and home therapy programs?

Y or N

Pre-training:

4. For the last three students you have supervised, what is the average number of times that the student initiated and carried through with a parent teaching session regarding toy selection and toy use at home?

0 1 2 3 4 5 6 7 8 9 or more.

Post-training:

4. For this student you have just supervised, how many times did the student initiate and carry through with a parent teaching session regarding toy selection and toy use at home?

0 1 2 3 4 5 6 7 8 9 or more.

APPENDIX D

CRITERIA FOR TOY SELECTION

Appendix D

CRITERIA FOR TOY SELECTION

The following criteria should be considered as you choose toys and activities:

1. Appropriate for developmental and chronological age of child.

2. Safe. Comply with safety standards.

3. Durable. Withstand hard use.

4. High motivational value.

5. Versatile. Adapt to more than one purpose, more than one age level.

6. Encourages active participation. Encourages action which can be completed in a relatively short time for young children.

7. Allows for both social and independent play.

8. Adaptable for special needs.

9. Gradable. Contribute toward readiness for the next step in developmental growth.

10. Self-corrective.

11. Develop strength and skill together with eye-hand coordination.

12. No negative social values inherent in toy.

13. Encourages creative and imaginative use.

14. Develops concommitant and colateral skills.

15. Fosters feelings of competence and self-esteem.

16. Cost is relative to experience toy provides.

17. Transportable.

18. Represents what the manufacturer claims in ease of assembly and use.

APPENDIX E

TOY ANALYSIS ASSIGNMENT

Appendix E

TOY ANALYSIS ASSIGNMENT

GENERAL INFO.

Name of toy:

Brief description of toy:

Purpose of toy:

Ages toy is appropriate:

Cost of toy:

Safety precautions:

DEVELOPMENTAL COMPONENTS.

Sensory aspects of toy: (visual, auditory, olfactory, gustatory, vestibular, kinesthetic)

Motor aspects of toy: (fine-motor, gross-motor, bilateral, perceptual-motor, etc.)

Physical aspects of toy: (other motor movements, coordination, strength, body position, endurance required)

Psychodynamic aspects of toy: (opportunities for expression of feelings, creativity, etc.)

Social aspects of toy: (opportunities to work alone, with others, amount of guidance required, etc.)

Practical aspects of toy: (noise, cleanliness, tools or materials needed, etc.)

Cognitive level, attention, and other skill aspects: (initiation, concentration, technical ability, manipulative ability, creative ability required, reasoning and problem-solving ability needed, etc.)

METHODS OF USE FOR DEVELOPMENTAL STIMULATION

Ways toy can be used to facilitate motor development:

Ways toy can be used to facilitate sensory integration:

Ways toy can be used to facilitate cognitive development:

Ways toy can be used to facilitate language development:

Ways toy can be used to facilitate social/emotional development:

Ways toy can be used to facilitate development of self-care skills:

ADAPTATIONS FOR EXCEPTIONAL CHILDREN

Ways toy can be adapted for use by a blind child:

Ways toy can be adapted for use by a deaf child:

Ways toy can be adapted for use by a child with spasticity:

Ways toy can be adapted for use by a child with poor motor planning (dyspraxia):

Ways toy can be adapted for use by a child with minimal hand function:

Ways toy can be adapted for use by a child with attention deficit disorder:

APPENDIX F

PARENT TRAINING TOPICS

Appendix F

PARENT TRAINING TOPICS

Why train or teach a parent?

What aspects of treatment should be taught to parents?

What do you teach parents first?

How do you decide what progression of training to use for a particular child?

What parents think is IMPORTANT.

What parents THINK is important.

Coordinating other home programs with yours.

Effects of giving the parents too much to do.

Effects of giving the parents too little to do.

Ethics, moral, legal aspects (responsibilities) encountered when deciding on type and amount of parent training appropriate.

Teaching parent how to be a good selector of appropriate toys: commercial, homemade, adapting if necessary, adapting with switches.

Making homemade toys and equipment: are there legal problems?

Written instructions; pre-written instruction sheets.

How to teach parents:

1. demonstrate with verbal explanation;

2. hands-on demonstration;

3. independent return demonstration from parent;

4. explanation of written instruction compared to demonstration;

5. next session - review of technique.